Title (en)

ELECTROLYTE-CONTAINING POLYMER NANOFIBERS PRODUCED BY AN ELECTROSPIN PROCESS, AND HIGH EFFICIENCY DYE-SENSITIZED SOLAR CELLS USING SAME

Title (de)

IN EINEM ELEKTROSPINNING-VERFAHREN HERGESTELLTE ELEKTROLYTHALTIGE POLYMER-NANOFASERN SOWIE HOCHEFFIZIENTE FARBSTOFFSENSIBILISIERTE SOLARZELLEN DAMIT

Title (fr)

NANOFIBRES POLYMERES CONTENANT UN ELECTROLYTE PRODUITES AU MOYEN D'UN PROCEDE D'ELECTROFILAGE, ET PHOTOPILES SENSIBLES AU COLORANT HAUTE EFFICACITE UTILISANT DE TELLES NANOFIBRES

Publication

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Application

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Abstract (en)

[origin: EP2323174A2] The present invention relates to polymer electrolyte including a polymer fiber having a nanoscale diameter, wherein the polymer fiber is fabricated by an electrospinning method. The present invention also relates to a solar cell device exhibiting high energy conversion efficiency using the same. The solid-state electrolyte comprising nanosized polymer fiber of the present invention does not need a sealing agent and further simplifies the entire process compared to the conventional dye-sensitized solar cell using liquid electrolytes. Specifically, the energy conversion efficiency of the dye-sensitized solar cell of the present invention is significantly superior to that of the dye-sensitized solar cell using a polymer film electrolyte fabricated by a spin coating method. Further, the dye-sensitized solar cell devices can be obtained by using a scattering layer and compensating the surface effect.

IPC 8 full level

H01G 9/20 (2006.01)

CPC (source: EP KR US)

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Citation (search report)

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